Pat. No. 05970399 - 1 Group ID: E Page 1
Issue Date: 06/21/04 User ID: sjvaugh KS: 7,343

Warning [US Ref Patentee Last Name: Page:5 Posn:3]

Last Name does not have an upper case first letter

Invalid [Pages Of US References:]

position 2 on page 10 refers to an item that is not a duplicate

Marker [Pages Of US References:]

Warning [Pages Of US References:]

page 4 has no references

page 9 has no references

Warning [Pages Of Boroign Reference

Warning [Pages Of Foreign References:]

page 1 has no references
page 2 has no references
page 4 has no references
page 5 has no references
page 6 has no references

Warning [Pages Of Other References:]

page 1 has no references page 2 has no references page 3 has no references page 10 has no references

Warning [Inventor Names Versus Inventors:]

the inventors at position 4 do not match because the middle name(C. D.) from the oath does not have the same first letter as the middle name(D.) from checklist

Group ID: E

User ID: sjvaugh

CHECK LIST

Rule 47 Continuing Data PCT Disclaimer

No Yes

No

No

Microfiche Appendix

CPA tag

No

No

Foreign Priority Claimed: No

Acknowledged: No

State Code: CA Country Code:

Text Endorsement: 09576652.052200

**JACKET** 

SERIAL NUMBER FILING DATE CLASS SUBCLASS GAU

09/576,652

05/22/00

455

13.1

2684

Page 1

FOREIGN PRIORITY

Country Document Number Date

DISCLAIMER

/ /

TITLE

Multi-node point-to-point satellite communication system employing multiple geo satellites

MICROFICHE APPENDIX

ASSISTANT EXAMINER:

First: Middle: Last:

Raymond Dean

PRIMARY EXAMINER:

First: Middle: Last:

Nay

Pat. No. 05970399 - 1

Group ID: E

Page 2

Issue Date: 06/21/04 User ID: sjvaugh

CLAIMS ALLOWED Print

19 1

DRAWINGS

Sheets Figures Print

5 9 Y

BLUE SLIP INFORMATION

SERIAL NUMBER CLASS SUBCLASS GAU

09/576,652 455 13.1 2684

INDEP. CLAIMS TOTAL CLAIMS

1,7,14

BLUE SLIP (Page 1)

INTERNATIONAL CLASSIFICATION

Class SubClass

H04B 7/19

CROSS-REFERENCES

Class SubClass

455 13.2;427

TERM EXTENSION

FIELD OF SEARCH

Class SubClass

342 388;418;357

398 125

Pat. No. 05970399 - 1 Group ID: E Page 3

Issue Date: 06/21/04 User ID: sjvaugh

455 427;429;430;426;12.1;13.1

375 1

370 95;320;325

244 158 R;159

OATH

INVENTOR NAME

First: Middle: Last: Signed:

Frank A. Hagen Yes

<u>City:</u> Palos Verdes Estates

State: CA ZIP Code: Country: Foreign ZIP:

INVENTOR NAME

First: Middle: Last: Signed:

Richard Flammang Yes

City: Manhattan Beach

State: CA ZIP Code: Country: Foreign ZIP:

INVENTOR NAME

First: Middle: Last: Signed:

Kar W. Yung Yes

City: Torrance

State: CA ZIP Code: Country: Foreign ZIP:

INVENTOR NAME

First: Middle: Last: Signed:

Donald C. D. Chang Yes

City: Thousand Oaks

State: CA ZIP Code: Country: Foreign ZIP:

Pat. No. 05970399 - 1 Group ID: E

Issue Date: 06/21/04 User ID: sjvaugh

Page 4

PCT INFO

CONTINUING DATA (Page 1)

<u>LINE CODE SERIAL NUMBER FILING DATE STATUS DOCUMENT NO. ISSUE DATE</u>

104 72 09/271,997 03/18/1999 //

## REFERENCES (Page 1) SERIAL NUMBER: 09/576,652 FORM 892

U.S. Pat No. Date	Patentee	Class	SubClass
*6,301,231 10/2001 No issue date available.	Hassan et al.	370	316
*6,226,493 05/2001 No issue date available.	Leopold et al.	455	13.1
5,589,834 12/1996	Weinberg	342	354

#### FOREIGN REFERENCES

II C DEPEDENCES

Foreign Doc No. Date Country Class SubClass

OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

# REFERENCES (Page 2) SERIAL NUMBER: 09/576,652 FORM 892

U.S. REFERENCES  U.S. Pat No.	Date	Patentee	Class	SubClass
<1,3>5,589,834	12/1996	Weinberg	342	354
*<1,2>6,226,493	05/2001	Leopold et al.	455	13.1

#### FOREIGN REFERENCES

No issue date available.

Foreign Doc No. Date Country Class SubClass

OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

Pat. No. 05970399 - 1 Group ID: E Page 5
Issue Date: 06/21/04 User ID: sjvaugh

### REFERENCES (Page 3) SERIAL NUMBER: 09/576,652 FORM 1449

U.S. REFERENCES U.S. Pat No.	Date	<u>Patentee</u>	Class	SubClass
5,444,450	08/1995	Olds et al.	342	357
3,544,995	12/1970	Bottenberg et al.	342	46
3,384,891	05/1968	Anderson	342	357
5,387,916	02/1995	Cohn	342	44
4,897,661	01/1990	Hiraiwa	342	457
5,006,855	04/1991	Braff	342	357
4,359,733	11/1982	O+3 Neill	343	6.5
4,161,734	07/1979	Anderson	342	352
4,613,864	09/1986	Hofgen	343	357
4,994,809	02/1991	Yung et al.	342	108
5,099,245	03/1992	Sagey	342	357
5,410,314	04/1995	Frush et al.	342	26
5,525,995	06/1996	Benner	342	90
4,161,730	07/1979	Anderson	342	352
2,470,787	05/1949	Nosker	342	12
5,126,748	06/1992	Ames et al.	342	353
5,920,284	07/1999	Victor	342	357.01
5,944,770	08/1999	Enge et al.	701	707
5,945,948	08/1999	Buford et al.	342	457
5,969,674	10/1999	Von Der Embse et al.	342	357.17
5,111,209	05/1992	Toriyama	342	357

Pat. No. 05970399 - 1 Group ID: E Issue Date: 06/21/04

User ID: sjvaugh

5,739,785 04/1998 Allison et al.

342

357

Page 6

Foreign Doc No.	Date	Country	Class	SubClass
0 335 558	04/1989	EPX		
3-291584	12/1991	JPX		
09026328	01/1997	JPX		
2-28580	01/1990	JPX		
4-27887	01/1992	JPX		
07146995A	06/1995	JPX		
08015405A	01/1996	JPX		
09113600A	05/1997	JPX		
10090391A	04/1998	JPX		
2 306 827 A	05/1997	GBX		
2 271 902 A	10/1993	GBX		

OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

#### REFERENCES (Page 4) SERIAL NUMBER: 09/576,652 FORM 1449

U.S. REFERENCES

U.S. Pat No. Date Patentee Class SubClass

FOREIGN REFERENCES

Foreign Doc No. Date Country Class SubClass

OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

Teles J et al.: +37 Overview of TDRSS+38 +0 Orbit Determination and Analysis. PSD Meeting, Cospar Technical Panel on Satellite Dynamics, 13+hu th +1 Cospar Scientific Assembly, Hamburg, Germany, Jul. 11-21, 1994, Advances in Space Research, pp. 67-76.

Issue Date: 06/21/04 User ID: sjvaugh

Bricker, P et al.: +37 Integrated Receiver for NASA Tracking and Data Relay Satellite System+38, MILCOM 90. A new Era, 1990 IEEE Military Communications Conference, Monterey, CA, USA, Sep. 30- Oct. 3, 1990, pp. 1-5.

Dunham, J B, et al.: +37 Onboard Orbit Estimation with Tracking and Data Relay Satellite System Data+38, Journal of Guidance, Control, and Dynamics, Jul.-Aug. 1983, USA, vol. 6 NR.4, pp. 292-301.

K. H. Bethke, +37 A Novel Noncooperative Near-Range Radar Network or Traffic Guidance and Control on Airport Surfaces+38 , IEEE Transactions on Control Systems Technology, vol. 1, No. 3, Sep. 1993.

Doc 9524 FANS/4-WP/76, International Civil Aviation Organization,
Special Committee on Future Air Navigation Systems, Fourth Meeting,
Montreal, May 2-20, 1988, Report, pp. 3.2B-2 & 3.2B-3.

## REFERENCES (Page 5) SERIAL NUMBER: 09/576,652 FORM 1449

_	U.S. Pat No.	<u>Date</u>	Patentee	Class	SubClass
	5,485,485	01/1996	Briskman et al.	375	200
	<3,2>3,544,995	12/1970	Bottenberg et al.	343	46
	<3,20>5,969,674	10/1999	von der Embse et al.	342	357.16
	5,644,572	07/1997	Olds et al.	370	324
	<3,3>3,384,891	05/1968	Anderson	343	100
	4,819,227	04/1989	Rosen	370	75
	5,278,863	01/1994	Briskman	375	1

	Pat. No. 05970399 - 1 Issue Date: 06/21/04	Group ID: E User ID: sjvaugh	Page 8
5,319,673	06/1994 Briskman	375	1
5,592,471	01/1997 Briskman	455	52.3
5,864,579	01/1999 Briskman	375	200
5,233,626	08/1993 Ames	375	1
*6,138,012 No issue date av	10/2000 Krutz et al. ailable.	455	427
FOREIGN REFERENCE Foreign Doc No.	ES Date Country Class	SubClass	
OTHER REFERENCE	CITATIONS (incl. Author, Title	e, Date, Pertinent	Pages, etc.)
U.S. patent appl	ication Ser. No. 09/584,012,	Chang et al., file	ed May
30, 2000.			
U.S. patent appl	ication Ser. No. 09/576,648,	Yung et al., filed	 1 May
22, 2000.			
U.S. patent appl	ication Ser. No. 09/644,225,	Hagen et al., file	ed Aug.
21, 2000.			
U.S. patent appl	ication Ser. No. 09/587,960,		- — — 1 Jun.
6, 2000.			
II S patent appl			- <b>-</b>
6, 2000.	ication Ser. No. 09/587,759,	rung et al., liled	Jun.
U.S. patent appl	ication Ser. No. 09/271,997,	Chang et al., file	ed Mar.
18, 1999.			
U.S. patent appl	ication Ser. No. 09/209,062,	 Yung et al., filed	 1 Dec.
10, 1998.			

Pat. No. 05970399 - 1 Group ID: E Issue Date: 06/21/04 User ID: sjvaug

Page 9

User ID: sjvaugh

U.S. patent application Ser. No. 09/550,505, Chang et al., filed Apr.

U.S. patent application Ser. No. 08/803,937, Chang et al., filed Feb.

21, 1997.

U.S. patent application Ser. No. 09/669,095, Yung et al., filed Sep.

25, 2000.

U.S. patent application Ser. No. 09/655,498, Chang et al., filed Sep.

5, 2000.

#### REFERENCES (Page 6) SERIAL NUMBER: 09/576,652 FORM 1449

### U.S. REFERENCES

U.S. Pat No. Date Patentee

Class SubClass

5,949,766

09/1999 Ibanez-Meier et al.

\*6,151,308 11/2000 Ibanez-Meier et al.

No issue date available.

### FOREIGN REFERENCES

Foreign Doc No. Date Country Class SubClass

OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

K. K. Chan, F. Marcoux, M. Forest, L. Martins-Camelo, +37 A Circularly

Polarized Waveguide Array for Leo Satellite Communications+38 , pp.

154-157, IEEE 1999 AP-S International Symposium, Jun. 1999.

M. Oodo, R. Miura, Y. Hase, +37 Onboard DBF Antenna for Stratospheric Platform+38 , pp. 125-128, IEEE Conference on Phased Array Systems and Technology, California, May 21-25, 2000.

Yokosuka Research park, +37 The First Stratospheric Platform Systems Workshop+38 , pp 1-216, May 12-13, 1999.

#### REFERENCES (Page 7) SERIAL NUMBER: 09/576,652 FORM 1449

U.S. REFERENCES U.S. Pat No.	<u>Date</u>	Patentee	Class	SubClass
5,109,390	04/1992	Gilhousen et al.		
5,339,330	08/1994	Mallinckrodt		
5,365,447	11/1994	Dennis		
5,379,320	01/1995	Fernandes et al.		
5,408,237	04/1995	Patterson et al.		
5,423,059	06/1995	LoGalbo et al.		
5,467,282	11/1995	Dennis		
5,572,216	11/1996	Weinberg et al.		
5,592,481	01/1997	Wiedeman et al.		
5,594,941	01/1997	Dent		
5,608,722	03/1997	Miller		
5,617,410	04/1997	Matsumoto		
5,867,109	02/1999	Wiedeman		
5,903,549	05/1999	Von Der Embse et al.		
5,907,813	05/1999	Johnson, Jr. et al.		
5,918,157	06/1999	Wiedeman et al.		
5,956,619	09/1999	Gallagher et al.		
*6,020,845 No issue date av		Weinberg et al.		

<sup>\*6,032,041 02/2000</sup> Wainfan et al. No issue date available.

Pat. No. 05970399 - 1 Group ID: E

Issue Date: 06/21/04 User ID: sjvaugh

Foreign Doc No.	Date	Country	Class	SubClass
0682 416 A2	11/1995	EPX		
0 749 252 A	12/1996	EPX		
0776 099 A2	05/1997	EPX		
0 845 874 A2	06/1998	EPX		
0 860 708 A	08/1998	EPX		
0 860 709 A	08/1998	EPX		

OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

Colella, Nicholas J. et al., +37 The HALO Network+198 +38 , IEEE

Communications Magazine, Jun. 2000, pp. 142-148.

Colella, Nicholas J. et al., +37 High Speed Internet Access via Stratospheric HALO Aircraft+38 , INET 99 Proceedings, Internet Society, Technology, Wireless, 13 pages, Jun. 8, 1999.

# REFERENCES (Page 8) SERIAL NUMBER: 09/576,652 FORM 1449

#### U.S. REFERENCES

U.S. Pat No. Date Patentee Class SubClass

\*6,067,442 05/2000 Wiedeman et al.

No issue date available.

\*6,104,911 08/2000 Diekelman

No issue date available.

\*6,195,555 02/2001 Dent

No issue date available.

\*6,229,477 05/2001 Chang et al.

No issue date available.

\*6,246,363 06/2001 Yung et al.

No issue date available.

Page 11

Pat. No. 05970399 - 1

Issue Date: 06/21/04 User ID: sjvaugh

\*6,266,533 07/2001 Zadeh et al.

No issue date available.

\*6,295,440 09/2001 Chang et al.

No issue date available.

\*<1,1>6,301,231 10/2001 Hassan et al.

No issue date available.

\*6,313,790 11/2001 Chang et al.

No issue date available.

\*6,314,269 11/2001 Hart et al.

No issue date available.

\*6,324,381 11/2001 Anselmo et al.

No issue date available.

\*6,336,030 01/2002 Houston et al.

No issue date available.

**\***6,337,980 01/2002 Chang et al.

No issue date available.

\*6,340,947 01/2002 Chang et al.

No issue date available.

\*6,377,208 04/2002 Chang et al.

No issue date available.

\*6,388,615 05/2002 Chang et al.

No issue date available.

\*6,563,457 05/2003 Chang et al.

No issue date available.

2001/0000167 04/2001 Chang et al.

2001/0045903 11/2001 Chang et al.

2002/0053987 05/2002 Chang et al.

#### FOREIGN REFERENCES

Foreign Doc No.	Date Country	Class	SubClass
0 860 710 A2	08/1998 EPX		
0 860 952 A	08/1998 EPX		
1 037 403 A2	09/2000 EPX		

Pat. No. 05970399 - 1 Group ID: E Issue Date: 06/21/04 User ID: sjv Page 13

User ID: sjvaugh

1 148 662 A2 10/2001 EPX

1 158 698 A2 11/2001 EPX

2 349 045 10/2000 GBX

### OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

Colella, Nicholas, +37 HALO Network+13 The Birth of Stratospheric Communications Services & the Decline of Satellite Networks+38, http://www.angelhalo.com/techpaper6, Copyright 1997-1999.

Djuknic, Goran et al., +37 Establishing Wireless Communications Services via High-Aeronautical platforms: A concept Whose Time Has Come+48 +38 +0 IEEE Communications Magazine, Sep. 1997, pp. 128-135.

#### REFERENCES (Page 9) SERIAL NUMBER: 09/576,652 FORM 1449

#### U.S. REFERENCES

U.S. Pat No. Date Patentee Class SubClass

FOREIGN REFERENCES Foreign Doc No.	<u>Date</u>	Country	Class	SubClass
08-331030	12/1996	JPX		
10-209939	08/1998	JPX		
11-8579	01/1999	JPX		
WO 01/93458 A2	12/2001	WOX		
WO 01/94969 A2	12/2001	WOX		
WO 01/95520 A2	12/2001	WOX		
WO 01/95522 A1	12/2001	WOX		
WO 90/13186	11/1990	WOX		
WO 95/04407	02/1995	WOX		

Pat. No. 05970399 - 1 Gr

Issue Date: 06/21/04

Group ID: E
User ID: sjvaugh

Page 14

WO 96/22661

07/1996 WOX

WO 9851568 A

11/1998 WOX

WO 99/13598

03/1999 WOX

OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

Martin, James N. et al., +37 HALO Network+13 The Cone of Commerce+38 , http://www.angelhalo.com/techpaper2, copyright 1997-1998.

Martin, James N. et al., +37 HALO Network+13 Broadband Wireless Services from High Altitude Long Operation (HALO) Aircraft+38, http://www.angelhalo.com/techpaper2, copyright 1997-1998.

Akyildiz, Ian F. et al., +37 HALO (High Altitude Long Operation): A Broadband Wireless Metropolitan Area Network+38 , IEEE International Workshop on Mobile Multimedia Communications, Nov. 1999, pp/. 271-275.

## REFERENCES (Page 10) SERIAL NUMBER: 09/576,652 FORM 1449

#### U.S. REFERENCES

U.S. Pat No.	Date	<u>Patentee</u>	Class	SubClass
5,839,053	11/1998	Bosch et al.	455	13.1
<7,10>5,233,626	08/1993	Ames	375	1

#### FOREIGN REFERENCES

Foreign Doc No. Date Country Class SubClass

0 837 568 A2 04/1998 EPX

OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

\*\*\*\*\*

Group ID: E

Page 1 User ID: sjvaugh KS: 7,257

Warning [US Ref Patentee Last Name: Page:3 Posn:19] Last Name does not have an upper case first letter Warning [US Ref Patentee Last Name: Page: 5 Posn: 3] Last Name does not have an upper case first letter Warning [US Ref Patentee Last Name: Page: 7 Posn:14]

Last Name does not have an upper case first letter

Warning [Pages Of US References:]

page 4 has no references

page 9 has no references

Warning [Pages Of Foreign References:]

page 1 has no references

page 2 has no references

page 4 has no references

page 5 has no references

page 6 has no references

page 10 has no references

Warning [Pages Of Other References:]

page 1 has no references

page 2 has no references

page 3 has no references

page 10 has no references

Warning [Inventor Names Versus Inventors:]

the inventors at position 4 do not match because the middle name(C. D.) from the oath does not have the same first letter as the middle name(D.) from checklist

Group ID: E

User ID: sjvaugh

Page 1

CHECK LIST

Rule 47 Continuing Data PCT Disclaimer

No/ Yes/ No/ No/

Microfiche Appendix CPA tag

No /

Foreign Priority Claimed: No /

Acknowledged: No -

State Code: CA / Country Code:

Text Endorsement: 09576652.052200

\_\_\_\_\_\_

**JACKET** 

SERIAL NUMBER FILING DATE CLASS SUBCLASS GAU

09/576,652 / 05/22/00 / 455 / 13.1 / 2684 /

FOREIGN PRIORITY

Country Document Number Date

DISCLAIMER

/ /

TITLE

Multi-node point-to-point satellite communication system employing

multiple geo satellites

MICROFICHE APPENDIX

ASSISTANT EXAMINER:

First: Middle: Last:

Raymond / Dean /

PRIMARY EXAMINER:

First: Middle: Last:

Nay / Maung /

Group ID: E

User ID: sjvaugh

Page 2

CLAIMS ALLOWED Print

19 / 1 /

DRAWINGS

Sheets Figures Print

5 / 9 / Y /

BLUE SLIP INFORMATION

SERIAL NUMBER CLASS SUBCLASS GAU

09/576,652 455 13.1 2684

INDEP. CLAIMS TOTAL CLAIMS

1,7,14

BLUE SLIP (Page 1)

INTERNATIONAL CLASSIFICATION

Class SubClass

H04B / 7/19 /

CROSS-REFERENCES

Class SubClass

455/ 13.2;427

TERM EXTENSION

FIELD OF SEARCH

Class SubClass

342 388;418;357

398 / 125

Pat. No. 05970399 - 1 Group ID: E
Issue Date: 06/21/04 User ID: sjvaugh

Page 3

427;429;430;426;12.1;13.1

158 R; 159 244

OATH

INVENTOR NAME

First: Middle: Last: Signed:

Frank / A. / Hagen / Yes -

City: Palos Verdes Estates 🖊

State: CA ZIP Code: Country: Foreign ZIP:

INVENTOR NAME

First: Middle: Last: Signed:

Richard < Flammang -Yes-

City: Manhattan Beach

State: CA ZIP Code: Country: Foreign ZIP:

INVENTOR NAME

First: Middle: Last: Signed:

Kar / w. / Yung / Yes —

City: Torrance ~

State: CA ZIP Code: Country: Foreign ZIP:

INVENTOR NAME

First: Middle: Signed: Last:

Donald — C. D. / Chang / Yes —

City: Thousand Oaks /

State: CA / ZIP Code: Country: Foreign ZIP:

Pat. No. 05970399 - 1 Group ID: E Page 4

Issue Date: 06/21/04 User ID: sjvaugh

PCT INFO

CONTINUING DATA (Page 1)

LINE CODE SERIAL NUMBER FILING DATE STATUS DOCUMENT NO. ISSUE DATE 104 72 09/271,997 / 03/18/1999 / / /

REFERENCES (Page 1) SERIAL NUMBER: 09/576,652 FORM 892 /

U.S. REFERENCES

U.S. Pat No.	Date	Patentee	Class	<u>SubClass</u>
*6,301,231' No issue date		Hassan et al. /	370/	316 /
*6,226,493′ No issue date		Leopold et al. <	455 /	13.1/
5,589,834 /	- 12/1996	Weinberg /	342 /	354 /

FOREIGN REFERENCES

Foreign Doc No. Date Country Class SubClass

OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

\_\_\_\_\_\_\_

REFERENCES (Page 2) SERIAL NUMBER: 09/576,652 / FORM 892 /

U.S. REFERENCES

U.S. Pat No.	<u>Date</u>	Patentee	Class	SubClass
<1,3>5,589,834	12/1996	Weinberg /	342 ′	354
*<1,2>6,226,493 No issue date ava			455	13.1 -

FOREIGN REFERENCES

Foreign Doc No. Date Country Class SubClass

OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

\_\_\_\_\_\_\_\_

Page 5

Pat. No. 05970399 - 1 Group ID: E Issue Date: 06/21/04 User ID: sjvaugh

# REFERENCES (Page 3) SERIAL NUMBER: 09/576,652

U.S. REFERENCES U.S. Pat No.	<u>Date</u>	Patentee	Class	SubClass
5,444,450	<b>/</b> 08/1995	Olds et al. ~	342 /	357
3,544,995/	12/1970	Bottenberg et al.	342	46 /
3,384,891 / 5,387,916 4,897,661 /	02/1995	Anderson - Cohn Hiraiwa -	342 / 342 342 -	357~ 44 457~
5,006,855 /	~ 04/1991	Braff /	342 -	357 ′
4,359,733/	11/1982	O+3 Neill-	343 ~	6.5~
4,161,734	07/1979	Anderson -	342 ~	352/
4,613,864/	09/1986	Hofgen /	343~	357
4,994,809-	/02/1991	Yung et al. /	342 /	108-
5,099,245/	/03/1992	Sagey /	342 /	357 ′
5,410,314/	<b>/</b> 04/1995	Frush et al. /	342 /	26 /
5,525,995	<b>~</b> 06/1996	Benner /	342/	90 ~
4,161,730/	< 07/1979	Anderson -	342/	352 -
2,470,787′	<b>~</b> 05/1949	Nosker /	342 ′	12 /
5,126,748/	/06/1992	Ames et al.~	342/	353 ′
5,920,284/	07/1999	Victor /	342~	357.01 /
5,944,770′	08/1999	Enge et al.	701/	707 /
5,945,948/	-08/1999	Buford et al. /	342 /	457 ~
5,969,674/	/10/1999	yon der Embse et al.	342 /	357.17
5,111,209/		Toriyama /	342/	357 /
5,739,785/	/ 04/1998	Allison et al. /	342/	357 ^

FOREIGN REFERENCES Foreign Doc No. Date Country Class SubClass Pat. No. 05970399 - 1 Group ID: E Page 6

Issue Date: 06/21/04 User ID: sjvaugh

0 335 558 /04/1989 EPX /

3-291584 ✓ 12/1991 JPX ✓

09026328 ~01/1997 JPX ~

2-28580 ~ 01/1990 JPX ~

4-27887 /01/1992 JPX/

07146995A ^ 

08015405A ~ ~01/1996 JPX ~

09113600A < ~05/1997 JPX **~** 

10090391A ~04/1998 JPX ~

2 306 827 A 

2 271 902 A 10/1993 GBX 1

OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

#### REFERENCES (Page 4) SERIAL NUMBER: 09/576,652 FORM 1449

#### U.S. REFERENCES

U.S. Pat No. Date Patentee Class SubClass

#### FOREIGN REFERENCES

Foreign Doc No. Date Country Class SubClass

### OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

Teles J et al.: +37 Overview of TDRSS+38 +0 Orbit Determination and

Analysis. PSD Meeting, Cospar Technical Panel on Satellite Dynamics, thus tha

13th Cospar Scientific Assembly, Hamburg, Germany, Jul. 11-21, 1994,

Advances in Space Research, pp. 67-76.

Bricker, P et al.: +37 Integrated Receiver for NASA Tracking and Data Relay Satellite System+38 , MILCOM 90. A new Era, 1990 IEEE Military

Pat. No. 05970399 - 1 Group ID: E Issue Date: 06/21/04 User ID: sjvaugh

Page 7

Communications Conference, Monterey, CA, USA, Sep. 30- Oct. 3, 1990, pp. 1-5.

Dunham, J B, et al.: +37 Onboard Orbit Estimation with Tracking and Data Relay Satellite System Data+38 , Journal of Guidance, Control, and Dynamics, Jul., -Aug. 1983, USA, vol. 6 NR.4, pp. 292-301.

K. H. Bethke, +37 A Novel Noncooperative Near-Range Radar Network or Traffic Guidance and Control on Airport Surfaces+38 , IEEE Transactions on Control Systems Technology, vol. 1, No. 3, Sep. 1993.

Doc 9524 FANS/4-WP/76, International Civil Aviation Organization, Special Committee on Future Air Navigation Systems, Fourth Meeting, Montreal, May 2-20, 1988, Report, pp. 3.2B-2 & 3.2B-3.

#### REFERENCES (Page 5) SERIAL NUMBER: 09/576,652 FORM 1449 /

U.	S. REFERENCES				
Ţ	J.S. Pat No.	<u>Date</u>	Patentee	Class	SubClass
5	5,485,485	01/1996	Briskman et al.	375	200
<	3,2>3,544,995	12/1970	Bottenberg et al.	3 3 <b>4</b> €	46
	3,19>5,969,674 5, <b>1</b> 44,5 <b>72</b> 3,3>3,384,891	07/1997	von der Embse et al. $= 0 ds$ et $al_{0}$ Anderson	342 / 370 3423	357.16 324 859 100
		04/1989	Rosen /	370~	75 ~
	),278,863 ) issue date av		Mabrouki) Brisk man	375 /	1 -
5	5,319,673	06/1994	Briskman /	375 /	1 /
5	5,592,471/	-01/1997	Briskman ~	455 r	52.3
5	5,864,579′ -	01/1999	Briskman /	375~	200 ~

Page 8

Pat. No. 05970399 - 1 Issue Date: 06/21/04

Group ID: E
User ID: sjvaugh

5,233,626 08/1993 Ames 1 375 1 \*6,138,012 10/2000 Krutz et al. / 455 427 / No issue date available. FOREIGN REFERENCES Foreign Doc No. Date Country Class SubClass OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.) U.S. patent application Ser. No. 09/584,012, Chang et al., filed May 30, 2000. U.S. patent application Ser. No. 09/576,648, Yung et al., filed May 22, 2000. U.S. patent application Ser. No. 09/644,225, Hagen et al., filed Aug. 21, 2000. U.S. patent application Ser. No. 09/587,960, Yung et al., filed Jun. 6, 2000. U.S. patent application Ser. No. 09/587,759, Yung et al., filed Jun. 6, 2000. U.S. patent application Ser. No. 09/271,997, Chang et al., filed Mar. 18, 1999. U.S. patent application Ser. No. 09/209,062, Yung et al., filed Dec. 10, 1998. U.S. patent application Ser. No. 09/550,505, Chang et al., filed Apr. 17, 2000.

Group ID: E
User ID: sjvaugh

Page 9

U.S. patent application Ser. No. 08/803,937, Chang et al., filed Feb. 21, 1997.

U.S. patent application Ser. No. 09/669,095, Yung et al., filed Sep. 25, 2000.

U.S. patent application Ser. No. 09/655,498, Chang et al., filed Sep. 5, 2000.

# REFERENCES (Page 6) SERIAL NUMBER: 09/576,652 FORM 1449

### U.S. REFERENCES

U.S. Pat No. Date Patentee

Class SubClass

5,949,766 ' '09/1999 Ibanez-Meier et al.'

\*6,151,308 11/2000 Ibanez-Meier et al. No issue date available.

#### FOREIGN REFERENCES

Foreign Doc No. Date Country Class SubClass

### OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

K. K. Chan, F. Marcoux, M. Forest, L. Martins-Camelo, +37 A Circularly Polarized Waveguide Array for Leo Satellite Communications+38, pp. 154-157, IEEE 1999 AP-S International Symposium, Jun. 1999.

M. Oodo, R. Miura, Y. Hase, +37 Onboard DBF Antenna for Stratospheric Platform+38, pp. 125-128, IEEE Conference on Phased Array Systems and Technology, California, May 21-25, 2000.

Yokosuka Research park, +37 The First Stratospheric Platform Systems Workshop+38 , pp 1-216, May 12-13, 1999.

Page 10

# REFERENCES (Page 7) SERIAL NUMBER: 09/576,652

U.S. REFERENCE U.S. Pat No.	<u>Date</u>	Patentee	Class	SubClass
5,109,390/	<b>/</b> 04/1992	Gilhousen et al. <	•	
5,339,330	08/1994	Mallinckrodt /		
5,365,447/	11/1994	Dennis /		
5,379,320/	/ 01/1995	Fernandes et al.		
5,408,237	< 04/1995	Patterson et al. /		
5,423,059′	<b>~</b> 06/1995	LoGalbo et al. /		
5,467,282/	<b>/</b> 11/1995	Dennis /		
5,572,216/	11/1996	Weinberg et al.		
5,592,481	/01/1997	Wiedeman et al. /		
5,594,941/	<sup>7</sup> 01/1997	Dent /		
5,608,722	<b>/</b> 03/1997	Miller /		
5,617,410	<b>/</b> 04/1997	Matsumoto /		·
5,867,109 /	/02/1999	Wiedeman /		
5,903,549/	<b>/</b> 05/1999	von der Embse et al.		
5,907,813/	/05/1999	Johnson, Jr. et al. /		
5,918,157/	<b>/</b> 06/1999	Wiedeman et al. /		
5,956,619 /	/09/1999	Gallagher et al. <		
*6,020,845 / No issue date	<pre>/02/2000 available.</pre>	Weinberg et al.		
*6,032,041		Wainfan et al. /		

#### FOREIGN REFERENCES

No issue date available.

Foreign Doc No.	Date	Country	Class	SubClass
0682 416 A2 /	/11/199	5 RPX /		

Pat. No. 05970399 - 1 Group ID: E Page 11

Issue Date: 06/21/04

User ID: sjvaugh

0 749 252 A / 12/1996 EPX /

0776 099 A2 🖊 

0 845 874 A2 🖊 ~06/1998 EPX ~

0 860 708 A ~ ~ ~ 08/1998 EPX ~

0 860 709 A - 08/1998 EPX -

### OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

Colella, Nicholas J. et al., +37 The HALO Network+198 +38 , IEEE

Communications Magazine, Jun. 2000, pp. 142-148.

Colella, Nicholas J. et al., +37 High Speed Internet Access via

Stratospheric HALO Aircraft+38 , INET 99 Proceedings, Internet

Society, Technology, Wireless, 13 pages, Jun. 8, 1999. —

#### REFERENCES (Page 8) SERIAL NUMBER: 09/576,652 FORM 1449 /

#### U.S. REFERENCES

#### U.S. Pat No. Date Patentee

Class SubClass

No issue date available.

\*6,104,911 / 08/2000 Diekelman / No issue date available.

\*6,195,555 / 02/2001 Dent /

No issue date available.

\*6,229,477/ /05/2001 Chang et al. /

No issue date available.

\*6,246,363 / /06/2001 Yung et al. /

No issue date available.

\*6,266,533 \( \tag{07/2001} \) Zadeh et al. \( \tag{266} \)

No issue date available.

\*6,295,440 < < 09/2001 Chang et al. <

No issue date available.

\*<1,1>6,301,231 10/2001 Hassan et al. No issue date available.

\*6,313,790 11/2001 Chang et al. No issue date available.

\*6,314,269 / 11/2001 Hart et al. / No issue date available.

\*6,324,381 / 11/2001 Anselmo et al./ No issue date available.

\*6,336,030 / 01/2002 Houston et al. ~ No issue date available.

No issue date available.

No issue date available.

\*6,377,208' '04/2002 Chang et al.' No issue date available.

No issue date available.

\*6,563,457 / 05/2003 Chang et al. No issue date available.

2001/0000167 < 104/2001 Chang et al. 1

2001/0045903 / 11/2001 Chang et al. /

2002/0053987 / /05/2002 Chang et al. /

#### FOREIGN REFERENCES

Foreign Do	C No.	<u>Date</u>	Country	<u>Class</u>	<u>SubClass</u>
0 860 710	A2 /	/08/1998	EPX /		
0 860 952	A ~	08/1998	EPX /		
1 037 403	A2 /	/09/2000	EPX /		
1 148 662	A2 ~	-10/2001	EPX /		
1 158 698	A2 /	-11/2001	EPX /		

Pat. No. 05970399 - 1 Group ID: E Issue Date: 06/21/04 User ID: sjvaugh

Page 13

2 349 045 ~ 10/2000 GBX ~

OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

Colella, Nicholas, +37 HALO Network+13 The Birth of Stratospheric Communications Services & the Decline of Safftellite Networks+38 , http://www.angelhalo.com/techpaper6, Copyright 1997-1999.

Djuknic, Goran et al., +37 Establishing Wireless Communications Services via High-Aeronautical platforms: A concept Whose Time Has Come+48 +38 +0 IEEE Communications Magazine, Sep. 1997, pp. 128-135.

#### REFERENCES (Page 9) SERIAL NUMBER: 09/576,652 FORM 1449 ~

U.S. REFERENCES
Pat No. Date Patentee Class SubClass

FOREIGN REFERENCE Foreign Doc No.	ES Date	Country	Class	SubClass
08-331030 ~	12/1996	JPX -		
10-209939	<b>/</b> 08/1998	JPX/		
11-8579 <	01/1999	JPX -		
WO 01/93458 A2	12/2001	. wox -		
WO 01/94969 A2	12/2001	. wox /		
WO 01/95520 A2/	-12/2001	. WOX -		
WO 01/95522 A1-	-12/2001	. wox ~		
WO 90/13186 ~	-11/1990	wox -		
WO 95/04407 /	- 02/1995	wox /		
WO 96/22661′	<b>~</b> 07/1996	wox –		
WO 9851568 A	<b>-11/1998</b>	wox /		
		_		

WO 99/13598 / 03/1999 WOX /

Pat. No. 05970399 - 1

Group ID: E

Page 14

Issue Date: 06/21/04

User ID: sjvaugh

OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)

Martin, James N. et al., +37 Halo Network+13 The Cone of Commerce+38 ,

http://www.angelhalo.com/techpaper2, copyright 1997-1998.

Martin, James N. et al., +37 HALO Network+13 Broadband Wireless

Services from High Altitude Long Operation (HALO) Aircraft+38 ,

http://www.angelhalo.com/techpaper2, copyright 1997-1998.

Akyildiz, Ian F. et al., +37 HALO (High Altitude Long Operation): A broadband Wireless Metropolitan Area Network+38 , IEEE International

Workshop on Mobile Multimedia Communications, Nov. 1999, pp/. 271-275.

#### REFERENCES (Page 10) SERIAL NUMBER: 09/576,652 FORM 1449

U.S. REFERENCES

U.S. Pat No. <u>Date</u> Patentee Class SubClass 5,839,053 11/1998 Bosch et al. 13.1

<5,10>5,233,626 08/1993 Ames ~

375 /

FOREIGN REFERENCES

Foreign Doc No. Date Country Class SubClass

0083725680A2 4/1998 OTHER REFERENCE CITATIONS (incl. Author, Title, Date, Pertinent Pages, etc.)